





THE NUMBER OF STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF:

Yoshiyuki NITTA

SERIAL NO:

09/837,460

GAU:

2181

FILED:

April 19, 2001

EXAMINER:

FOR:

FIELD APPARATUS CONTROL SYSTEM AND COMPUTER-READABLE STORAGE MEDIUM

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97

ASSISTANT COMMISSIONER FOR PATENTS WASHINGTON, D.C. 20231

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SIR:

Applicant(s) wish to disclose the following information.

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Technology Center 2100

REFERENCES

The applicant(s) wish to make of record the references listed on the attached form PTO-1449. Copies of the listed references are attached, where required, as are either statements of relevancy or any readily available English translations of pertinent portions of any non-English language references.

☐ A check is attached in the amount required under 37 CFR §1.17(p).

RELATED CASES

- Attached is a list of applicant's pending application(s) or issued patent(s) which may be related to the present application. A copy of the patent(s), together a copy of the claims and drawings of the pending application(s) is attached along with PTO 1449.
- ☐ A check is attached in the amount required under 37 CFR §1.17(p).

CERTIFICATION

- ☐ Each item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement.
- □ No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned, having made reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this statement.

DEPOSIT ACCOUNT

Please charge any additional fees for the papers being filed herewith and for which no check is enclosed herewith, or credit any overpayment to deposit account number 15-0030. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

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Group Art Unit: 2181

STATEMENT OF RELEVANCY

Reference AO (JP 5-76077) on Form 1449:

This reference maintain high reliability with simple composition of electric devices and field buses which supply power and transmit signals to the devices.

It also relates to a field bus system for supplying power through a field bus to a field device and transmitting therethrough signals to/from the field device. The field bus is configured to be duplicated so that, for example, the field device and an external power supply are connected through the duplicated field buses to an upper device, whereby the external power supply can supply power to the upper device through at least one of the duplicated field buses, and the field bus can communicate with the upper device through at least one of the duplicated field buses. When a fault occurs in one of the duplicated field buses in use, the field device and the power supply detect the occurrence of fault in one of the duplicated field buses in use so as to switch field bus to be used to other of the duplicated field buses in no use, whereby the field device can communicate signals from/to the upper device through the other of the duplicated field buses, which is not at fault, and the power supply can supply power to the upper device through the other of the duplicated field buses. According to the structure, even if a fatal fault occurs in the one of the duplicated field buses, it is possible to automatically switch the field bus to be used to the other of the duplicated field buses, which is not at fault, so that the field device and the power supply continuously communicate with the upper device through the other of the duplicated field buses, which is not at fault.